



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

OCT 30 2006

REPLY TO THE ATTENTION OF:  
AE-17J

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Glenn Stroud, General Manager U.S. Nitrogen  
Agrium U.S., Inc.  
1551 Farm Rd  
P.O. Box 5067  
Borger, TX 79008-5067  
Fax: 806-468-0691

Dear Mr. Stroud:

This is to advise you that the United States Environmental Protection Agency (U.S. EPA) has determined that the Agrium U.S., Inc. (Agrium) facility at 10743 Brower Road, North Bend, Ohio is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A discussion of the requirements violated is provided below. A Notice of Violation and Finding of Violation (NOV/FOV) for these violations is being issued and is enclosed for your review.

The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. To attain and maintain these standards, each State is required to develop an implementation plan. Among other things, each implementation plan must include a permit program to regulate the modification and construction of any stationary source of air pollution as necessary to assure that NAAQS are achieved. The State of Ohio has incorporated such a permitting program into its State Implementation Plan (SIP). Under this program, owners or operators must obtain a permit to install (PTI) from the director of the Ohio Environmental Protection Agency (Ohio EPA) before beginning installation of a new source of air pollutants or the modification of an existing air containment source.

Title I, Part C of the CAA requires that all SIP permit programs contain rules regulating the construction and modification of major stationary sources in areas that have achieved attainment with the NAAQS. These rules are known as Prevention of

Significant Deterioration (PSD). Under PSD rules, any major stationary source must obtain a preconstruction permit prior to commencing construction on any modification, if the modification is major in that it will result in a significant net increase in emissions of a regulated pollutant, and if the source is located in an area which has achieved the NAAQS for that pollutant. All preconstruction permits issued to sources subject to PSD must require (1) the application of Best Available Control Technology (BACT) and (2) a demonstration that the proposed modification does not cause or contribute to a violation of the NAAQS or cause any other significant deterioration of air quality. The State of Ohio has incorporated PSD rules into its SIP.

In addition, Section 111 of the CAA requires U.S. EPA to implement the New Source Performance Standards (NSPS) program. The NSPS are nationally uniform emission standards for new or modified stationary sources falling within industrial categories that significantly contribute to air pollution. The "Standards of Performance for Nitric Acid Plants" at 40 C.F.R. Part 60, Subpart G, limits the emission of nitrogen oxides to 1.5 kilograms per metric ton of 100% nitric acid produced (3 pounds per ton) from any nitric acid plant constructed, reconstructed or modified after August 17, 1971. The nitric acid NSPS also contains monitoring, testing, and reporting requirements.

U.S. EPA finds that Agrium's facility has violated the above listed CAA rules and regulations. Since Agrium's facility is subject to applicable requirements under the CAA that are not listed in its Title V permit, it has also violated Title V of the CAA and its associated regulations which require that all CAA requirements applicable to a source be incorporated into that source's Title V permit.

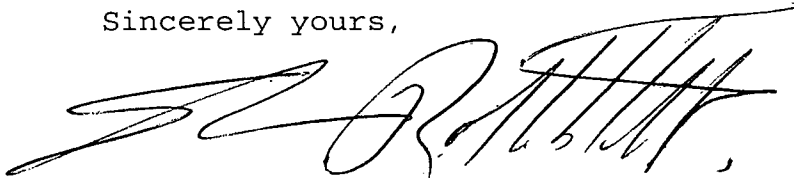
Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. The option we select, in part, depends on the efforts taken by Agrium to correct the alleged violations and the timeframe in which you can demonstrate and maintain continuous compliance with the requirements cited in the FOV/NOV.

Before we decide which enforcement option is appropriate, Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the

FOV/NOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contact in this matter is Nathan A. Frank P.E. You may call him at (312) 886-3850 if you wish to request a conference. EPA hopes that this FOV/NOV will encourage Agrium's compliance with the requirements of the Clean Air Act.

Sincerely yours,

A handwritten signature in black ink, appearing to read "S. Rothblatt", with a stylized, cursive script.

Stephen Rothblatt, Director  
Air and Radiation Division

Enclosure

cc: Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Agency

Cory Chadwick, Director  
Hamilton County Environmental Services

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

IN THE MATTER OF:	)	
	)	
Agrium U.S., Inc.	)	NOTICE OF VIOLATION and
North Bend, Ohio	)	FINDING OF VIOLATION
	)	
	)	EPA-5-07-OH-02
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	

**NOTICE AND FINDING OF VIOLATION**

Agrium U.S., Inc. (you or Agrium) owns and operates a nitric acid production plant at 10743 Brower Road, North Bend, Ohio (the North Bend Facility, or Facility).

U.S. EPA is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to you because the previous owner of the North Bend Facility, Royster-Clark Agribusiness, Inc., while known as Vigoro Industries, Inc. conducted a major modification at the nitric acid plant at the North Bend Facility without obtaining a PSD permit as required by Prevention of Significant Deterioration (PSD) rules. Such a PSD permit would have required the installation and continuous operation of Best Available Control Technology (BACT) for control of nitrogen oxides (NOx) on the nitric acid plant. Furthermore, the North Bend Facility's nitric acid plant continuously emits NOx emissions from in excess of the New Source Performance Standards (NSPS) for nitric acid plants. The underlying statutory and regulatory requirements include provisions of the Clean Air Act (the Act or CAA), its implementing regulations and the Ohio State Implementation Plan (Ohio SIP).

In August 2006, the previous owner of the North Bend Facility, Royster-Clark AgriBusiness, Inc. merged with its parent company Royster-Clark, Inc. As a result of this merger, Royster-Clark, Inc. succeeded to all obligations of Royster-Clark Agribusiness, Inc., including the liabilities of Royster-Clark Agribusiness, Inc. Agrium U.S. is the current owner and operator of the North Bend Facility, having acquired the Facility through purchase

from Royster-Clark in September 2006. As a result of its acquisition of the Plant, Agrium U.S. has assumed the liabilities of Royster-Clark AgriBusiness, Inc. and Royster-Clark, Inc. at issue in this NOV/FOV. Agrium is also liable for complying with the CAA provisions specified in this notice as the current owner or operator of the North Bend Facility.

Section 113 of the Act provides you with the opportunity to request a conference with us to discuss the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for the Facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

### **Explanation of Violations**

1. The following provisions of the CAA, its implementing regulations and the Ohio SIP are relevant to this NOV/FOV:

#### Prevention of Significant Deterioration

- a. Part C of Title I of the CAA and the PSD regulations implementing Part C, at 40 C.F.R. § 52.21, prohibit a major stationary source from constructing a modification without first obtaining a PSD permit, if the modification is major in that it will result in a significant net increase in emissions of a regulated pollutant, and if the source is located in an area which has achieved the National Ambient Air Quality Standards (NAAQS) for that pollutant. Part C and its implementing regulations further require that a source subject to PSD regulations install BACT.
- b. 40 C.F.R. § 52.21(b)(1)(i)(a) defines a "major stationary source" as any stationary source within one of 28 source categories which emits, or has the potential to emit, 100 tons per year or more of any air pollutant subject to regulation under the CAA. Nitric acid plants are included among the 28 source categories.
- c. 40 C.F.R. § 52.21(b)(2)(i) defines a "major modification" as any physical change in or change in the method of operation of a major stationary source

that would result in a significant net emissions increase of any pollutant subject to regulation under CAA.

- d. 40 C.F.R. § 52.21(b)(3)(i) defines "net emissions increase" as "the amount by which the sum of the following exceeds zero:
  - i. Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source; and
  - ii. Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable."
- e. In reference to NO<sub>x</sub>, 40 C.F.R. § 52.21(b)(23)(i) defines significant net emissions increase as any increase in NO<sub>x</sub> of 40 tons or more per year.
- f. 40 C.F.R. § 52.21(n) requires any applicant for a permit to modify a stationary source to provide all relevant information to allow the permitting authority to perform an analysis or make the determination required in order to issue the appropriate permit.

#### National Standards of Performance for Nitric Acid Plants

- g. An affected facility under the NSPS for Nitric Acid Plants, 40 C.F.R. Part 60, Subpart G (40 C.F.R. §§ 60.70-60.74), is any nitric acid production unit constructed, reconstructed, or modified after August 17, 1971.
- h. The general provisions to NSPS (40 C.F.R. §§ 60.1-60.19) define "modification" as "any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies . . ." For the purposes of NSPS, the emission rate is expressed in kilograms per hour (pounds per hour) of any pollutant discharged to the atmosphere. The general provisions go on to require any modified facility to comply with the applicable

NSPS standard within 180 days from the completion of any physical or operational change.

- i. 40 C.F.R. § 60.7 requires that any owner or operator subject to NSPS provide written notification of the date of construction, the date of start up, and the date of any physical or operational change to a NSPS affected facility.
- j. 40 C.F.R. § 60.8 requires any owner or operator of an NSPS affected facility to conduct a performance test and furnish a written report of the results to the U.S. EPA.
- k. 40 C.F.R. § 60.72(a) prohibits any affected nitric acid plant to (1) emit NO<sub>x</sub> in excess of 1.5 kilograms per metric ton of acid produced (kg/ton) (3.0 pounds per ton of acid produced (lbs/ton)), the production being expressed as 100 percent nitric acid; (2) Exhibit 10 percent opacity or greater.
- l. The Nitric Acid Plant NSPS at 40 C.F.R. § 60.73 requires each affected nitric acid plant to install, calibrate, maintain, and operate a continuous monitoring system (CEMS) for measuring nitrogen oxides (NO<sub>x</sub>) and to record the daily production rate and hours of operation.

#### Requirements for Ohio SIP Permits to Install

- m. Permit to Install (PTI) rules in the Ohio SIP at OAC Rule 3745-31-02(A) require any person that installs a new source of air pollutants or modifies an air containment source to first obtain a permit to install from the Ohio EPA.

#### Requirements for Title V Operating Permits

- n. Title V of the CAA establishes an operating permit program for major sources. The purpose of Title V is to ensure that all "applicable requirements" for compliance with the CAA, including PSD and NSPS requirements, are collected in one place.
- o. The Title V permit program requires that each Title V permit include enforceable emission limitations and

such other conditions as are necessary to assure compliance with "applicable requirements" of the CAA and the requirements of the applicable SIP. "Applicable requirements" include any applicable PSD requirements and any applicable NSPS requirements.

- p. Under Title V, any owner or operator of a source subject to the Title V program is required to submit a timely and complete permit application that contains information sufficient to determine the applicability of any applicable requirements (including any requirement to meet BACT pursuant to PSD and to comply with NSPS), certifies compliance with all applicable requirements, provides information that may be necessary to determine the applicability of other applicable requirements of the CAA and contains a compliance plan for all applicable requirements for which the source is not in compliance.
- q. Under Title V, any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application is required to promptly submit such supplementary facts or corrected information upon becoming aware of such failure or incorrect submittal.
- r. Title V program requirements are codified at Section 503 of the CAA, 42 U.S.C. § 7661b with implementing regulations at 40 C.F.R. Part 70. Ohio's Title V permit program is codified at OAC 3745-77.

#### Factual Background

- 2. On or about 1990, a heat train revision was performed by Agrium's predecessor, Royster-Clark AgriBusiness, Inc., then known as Vigoro Industries, Inc. on the nitric acid plant at the North Bend Facility. This involved redesigning and replacing the plant's heat train. At this time, the air preheater, ammonia converter, turbine gas heater, steam superheater, ammonia/air mixer, tailgas heater, ammonia vaporizer, boiler feedwater economizer, stage 1 boiler, stage 2 boiler, and steam drum were replaced. Subsequent to the heat train revision, the following work was performed on the nitric acid plant:

1991 Modification to Secondary Absorber



- 1992 Tail Gas Preheater upgrade
- 1992 Cooler Condenser upgrade
- 1994 Platinum Filter upgrade
- 1994 Air compressor filters installation
- 1996 Expander Turbine Upgrade
- 1996 Compressor train intercoolers replacement

This change increased the 100% nitric acid production capacity of the nitric acid plant from 230 tons per day in 1989 to 304 tons per day by 2002. As a result of this capacity increase, the emission rate of NOx to the atmosphere from the nitric acid plant, expressed in kg/hr, increased. Furthermore the annual emissions of NOx increased 83.5 tons per year.

3. Agrium operates a 7,000,000 gallon anhydrous ammonia storage tank equipped with a flare which is used intermittently to regulate pressure inside of the tank. When the ammonia flare is in operation, it causes the emission of NOx into the atmosphere.

#### National Standards of Performance for Nitric Acid Plants

4. The change described in Paragraph 2 triggered NSPS "modification" provisions in 40 C.F.R. § 60.14. As a result, Agrium's nitric acid plant is subject to 40 C.F.R. Part 60 Subpart G. Furthermore, Agrium's predecessor, Royster-Clark, Agribusiness, Inc. violated 40 C.F.R. §§ 60.7 and 60.8 for undertaking this modification without fulfilling NSPS testing and reporting requirements.
5. Agrium's nitric acid plant continuously violates the Nitric Acid Production NSPS standard of 1.5 kilograms per metric ton of acid produced (kg/ton) (3.0 lbs/ton), at 40 C.F.R. § 60.72(a). The most recent stack test on the nitric acid plant showed it to be emitting 4.4 lbs of NOx per ton of 100% nitric acid produced on April 23 and 24, 1991.
6. Agrium's nitric acid plant continuously violates 40 C.F.R. § 60.73(a) because it is not equipped with a properly installed, calibrated, and maintained continuous emission monitor which meets Performance Specification 2 in 40 C.F.R. Part 60 Appendix B.

#### Prevention of Significant Deterioration

7. The change described in Paragraph 2 increased emissions of NOx greater than the significance level of 40 tons per year at 40 C.F.R. § 52.21(b)(23)(i) at Agrium's North Bend facility. Therefore, the change resulted in a "major modification" as defined in 40 C.F.R. § 52.21(b)(2) at a "major stationary source" as defined in 40 C.F.R. § 52.21(b)(1) triggering the requirement to (1) obtain a PSD PTI, (2) apply BACT on the nitric acid plant, and (3) demonstrate that the proposed change did not cause a significant deterioration in air quality.
8. Agrium's Facility continuously violates PSD rules at 40 C.F.R. §§ 52.21(i) through (r) because it continues to operate its nitric acid plant without: (1) a PSD PTI; (2) BACT control equipment; and (3) demonstrating that the change described in Paragraph 2 did not cause a significant deterioration in air quality.

#### Requirements for SIP Permits to Install

9. Agrium's Facility continuously violates OAC Rule 3745-31-02(A) because its predecessor, Royster-Clark AgriBusiness, Inc., then known as Vigoro Industries, Inc., constituted a modification without first obtaining a permit to install from the director of the Ohio EPA.

#### Requirements for Title V Operating Permits

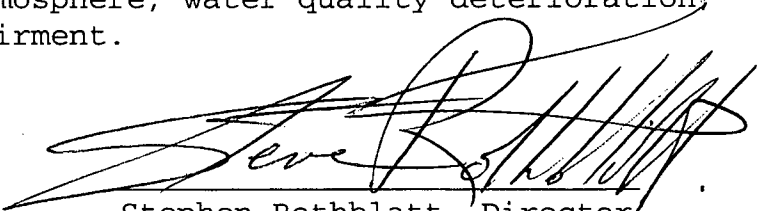
10. On February 21, 1996, Agrium's predecessor, Royster-Clark AgriBusiness, Inc., then known as Vigoro Industries, Inc. submitted its Title V permit application to the Ohio EPA. This permit application contained no information regarding the change to the nitric acid plant described in Paragraph 2, nor did it contain any information regarding the emission of NOx from the ammonia flare. Additionally, the permit application stated that the nitric acid plant had never been modified as defined in OAC 3745-31-01. Since submission of the Title V permit application, no owner or operator of the North Bend Facility has submitted any supplementary information regarding the change described in Paragraph 2 or the emissions of NOx from the ammonia flare.
11. Based on the information contained in the Title V permit application submitted on February 21, 1996, the Ohio EPA issued a Title V permit to the North Bend Facility on August 15, 2001.

12. Agrium's Facility continuously violates Title V permitting requirements at Section 503 of the CAA, 40 C.F.R. Part 70, and OAC 3745-77 because it has yet to submit a complete application for a Title V operating permit for the North Bend Facility that identifies all applicable requirements, that accurately certifies compliance with such requirements, and that contains a compliance plan for all applicable requirements for which it is not in compliance (including information pertaining to the change described in Paragraph 2, the requirement to meet BACT pursuant to a new BACT determination under PSD, and the emission of NOx from the ammonia flare). Furthermore, Agrium has yet to supplement and/or correct its February 21, 1996 Title V permit application with supplementary facts and corrected information regarding the change described in Paragraph 2, the requirement to meet BACT pursuant to a new BACT determination under PSD and the emission of NOx from the ammonia flare.

#### **Environmental Impact of Violations**

13. Violation of NOx standards increases ground level concentrations of ozone and nitrogen dioxide, both of which can cause respiratory inflammation, increased difficulty breathing, and lung damage. NOx emissions also contribute to acid rain, global warming, the formation of fine particles in the atmosphere, water quality deterioration, and visibility impairment.

10/30/2006  
Date

  
Stephen Rothblatt, Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-07-07-OH-02, by Certified Mail, Return Receipt Requested, to:

Glenn Stroud, General Manager U.S. Nitrogen  
Agrium U.S., Inc.  
1551 Farm Rd  
P.O. Box 5067  
Borger, TX 79008-5067

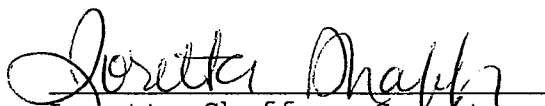
I also certify that I sent copies of the Finding of Violation and Notice of Violation by first class mail to:

Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Agency  
Lazarus Government Center  
P.O. Box 1049  
Columbus, Ohio 43216-1049

and

Cory Chadwick, Director  
Hamilton County Environmental Services  
Air Quality Programs  
250 William Taft Road  
Cincinnati, Ohio 45219

on the 1<sup>st</sup> day of November, 2006.

  
Loretta Shaffer, Secretary  
AECAS, (MN/OH)

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0005 8919 2515